CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM
maintained by the
CALIFORNIA DEPARTMENT OF FISH AND GAME
and supported by the
CALIFORNIA INTERAGENCY WILDLIFE TASK GROUP
Database Version 8.1 (2005)

B304 Hairy Woodpecker Picoides villosus
Family: Picidae Order: Piciformes Class: Aves

Written by: G. Ahlborn
Reviewed by: N. Johnson
Edited by: G. Ahlborn

DISTRIBUTION, ABUNDANCE, AND SEASONALITY

A fairly common, permanent resident of mixed conifer and riparian deciduous habitats from sea level to 2700 m (0-9000 ft). Occurs the length of the state, but very scarce in portions of coastal southern California, Central Valley, Salinas Valley, Mojave and Colorado deserts, and Great Basin.

SPECIFIC HABITAT REQUIREMENTS

Feeding: Approximately 80% of annual diet is animal matter; arthropods (beetles, ants, caterpillars, spiders, millipedes, aphids, other larvae). Also eats mast (acorns, hazelnuts, dogwood, cherry, serviceberry, pinenuts) and sap and cambium (Beal 1911, Bent 1939). Drills, pecks, and probes in crevices of bark of dead and live trees, logs, and stumps. Often congregates to feed in insect-infested or burned areas (Koplin 1969).

Cover: Uses stands of large, mature trees and snags of sparse to intermediate density. Cover provided also by cavities.

Reproduction: Excavates nest cavity from 0.9 to 31 m (3-102 ft) above ground in soft interior of snag or dead branch (Raphael and White 1984) in larch, sycamore, willow, fir, or other species (Lawrence 1967). Nest tree diameter (dbh) averaged 44 cm (17 in), and ranged from 34-76 cm (13-30 in) (Lawrence 1967).

Water: No additional information found, but frequents riparian habitats.

Pattern: Uses relatively open or patchy stands of conifers with adjacent riparian habitats and abundant snags. Tree/shrub, tree/herbaceous, and shrub/ herbaceous ecotones important. In the Blue Mts. of Oregon and Washington, Thomas (1979) estimated that 446 snags per 100 ha (180 per 100 ac) of 25 cm (10 in) dbh minimum would support maximum populations.

SPECIES LIFE HISTORY

Activity Patterns: Yearlong, diurnal activity.

Seasonal Movements/Migration: In fall and winter, may move downslope into valley foothill hardwood-conifer habitats.

Home Range: Territory and home range apparently the same.

Territory: In a mature conifer forest in central Ontario, Lawrence (1967) found that breeding territory averaged 2.8 ha (7 ac), and ranged from 2.4 to 3.2 ha (6-8 ac). Exhibits

intraspecific defense of nest (Dawson 1923), and interspecific defense of feeding sites (Bendire 1895). Male and female may have separate fall and winter territory (Kilham 1965).

Reproduction: As with most woodpeckers, male drums on dry, resonant limbs to attract female (Ridgway 1914). Breeds from mid-March to late August; peak nesting activity late May through June. Average clutch 4 eggs; range 3-6. One brood per yr. Male and female dig cavity, incubate eggs, and care for altricial young. Incubation lasts about 12 days (Bendire 1895). Pair may remain together for several years (Willard 1918, Carpenter 1919).

Niche: Interspecific competition for food between hairy and downy woodpeckers apparently reduced by feeding on different species of tree (Kisiel 1972), and in different locations in same tree. Abandoned cavities provide cover for many other species. May be important in reducing populations of adult and larval bark beetles (Otvos 1979).

Comments: Numbers apparently declining in recent decades (Ehrlich et al. 1988).

REFERENCES

Beal, F. E. L. 1911. Food of woodpeckers of the United States. U.S. Biol. Surv. Bull. No. 37. 64pp.

Bendire, C. 1895. Life histories of North American birds. Vol. 2. Smithsonian Contrib. to Knowledge No. 985. Smithsonian Inst., Washington DC. 518pp.

Bent, A. C. 1939. Life histories of North American woodpeckers. U.S. Natl. Mus. Bull. 174. 334pp.

Carpenter, N. K. 1919. Evidence that many birds remain mated for a number of years. Condor 21:28-30.

Dawson, W. L. 1923. The birds of California. 4 Vols. South Moulton Co., San Diego. 2121pp.

Ehrlich, P. R., D. S. Dobkin, and D. Wheye. 1988. The birder's handbook. Simon and Schuster, New York. 785pp.

Grinnell, J., and A. H. Miller. 1944. The distribution of the birds of California. Pac. Coast Avifauna No. 27. 608pp.

Kilham, L. 1965. Differences in feeding behavior of male and female hairy woodpeckers. Wilson Bull. 77:134-145.

Kisiel, D. S. 1972. Foraging behavior of Dendrocopos villosus and D. pubescens in eastern New York state. Condor 74:393-398.

Koplin, J. R. 1969. The numerical response of woodpeckers to insect prey in a subalpine forest in Colorado. Condor 71:436-438.

Lawrence, L. de K. 1967. A comparative life-history study of four species of woodpeckers. Ornithol. Monogr. No. 5. 156pp.

Otvos, I. S. 1979. The effects of insectivorous bird activities in forest ecosystems: an evaluation. Pages 341-374 in J. G. Dickson, E. N. Conner, R. R. Fleet, J. C. Kroll, and J. A. Jackson, eds. The role of insectivorous birds in forest escosystems. Academic Press, New York. 381pp.

Raphael, M. G., and M. White. 1984. Use of snags by cavity-nesting birds in the Sierra Nevada. Wild. Monogr. No. 86. 66pp.

Ridgway, R. 1914. The birds of North and Middle America. U.S. Natl. Mus. Bull. No. 50, Part VI. 882pp.

Selander, R. K. 1965. Sexual dimorphism in relation to foraging behavior in the hairy woodpecker. Wilson Bull. 77:416.

Thomas, J. W., ed. 1979. Wildlife habitats in managed forests: The Blue Mountains of Oregon and Washington. U.S. Dept. Agric., For. Serv., Portland, OR. Agric. Handb. No. 553. 512pp.

Willard, R. C. 1918. Evidence that many birds remain mated for life. Condor 20:167-170.

Species notes are designed to support the species-habitat relationships database models in the California Wildlife Habitat Relationships (CWHR) System and are also published within the current version of the CWHR software. Please cite as: California Department of Fish and Game. California Interagency Wildlife Task Group. 2005. California Wildlife Habitat Relationships version 8.1 personal computer program. Sacramento, California.